PHED Committee #1
September 30, 2013

MEMORANDUM

September 26, 2013

TO: Planning, Housing, and Economic Development (PHED) Committee

FROM: Marlene Michaelson, Senior Legislative Analyst

SUBJECT: Glenmont Sector Plan

This is the Planning, Housing, and Economic Development (PHED) Committee's third worksession on the Glenmont Sector Plan. This memorandum provides a summary of Committee land use decisions at the previous worksessions and addresses Georgia Avenue West land use issues, environmental issues, and community facility issues.

Councilmembers should bring their copy of the Plan to the meeting.

SUMMARY OF COMMITTEE DECISIONS

1. Delete description of the financial analysis on page 12.
2. Support the Staff recommendations to designate the Georgia Avenue Baptist Church as historic and not designate the Police Station and the water tower.
3. Support the Sector Plan recommendation for the Metro Station/Layhill Triangle Block (for CR 2.0, C 0.25, R 1.75, H 120[1]), but increase commercial floor area ratio (FAR) from 0.25 to 0.5.
4. Support the Sector Plan recommendations for the Glenmont Metro Center (Privacy World) site (CR 2.0, C 0.25, R 2.0, H 120) and update the Sector Plan to indicate that there is an approved preliminary plan.
5. Support the Sector Plan recommendation to reconfirm the existing zoning on the First Assembly of God Church Property and adjacent properties, with a recommendation that they are suitable for a floating townhouse zone at 15 units per acre.
6. Support the Sector Plan recommendation to reconfirm the existing zoning on the Glen Waye Garden Condominiums (R-30) and Existing Neighborhoods Surrounding the Glenmont Core.

[1] CR stands for Commercial/Residential, C for commercial, R for residential, and H for height.

7. Amend the Sector Plan recommendation for the Winexburg Manor Property. Retain the existing R-30 and R-20 zoning and indicate that the property may be appropriate for a future local map amendment to the CR and CRN zones (CR 1.75, C 0.25, R 1.5, H 85 for most of the site and CRN 1.5, C 0.25, R 1.5, H 45 for area adjacent to the area abutting existing townhouses).
8. Amend the Sector Plan recommendations for the Glenmont Forest Block. Retain the existing R-30 zoning and indicate that the property may be appropriate for a future local map amendment to the CR and CRN zones (CR 1.75, C 0.25, R 1.5, H 75 for most of the site and CRN 1.5, C 0.25, R 1.5, H 45 for the area abutting existing single-family residential development).
9. Amend the Sector Plan recommendations for the Glenmont Shopping Center. Identify a zone that will exist after the Zoning Ordinance Rewrite and would allow only the existing amount of development. Require a local map amendment to allow any increase in development or redevelopment of the site. Indicate that the property may be appropriate for the rezoning to CR 3.0, C 1.0, R 2.5, H 120, with highest heights limited to the interior of the site and a 45-foot height limit for the portion of the site adjacent to Glen Waye Gardens community to the northeast.

GLENMONT SHOPPING CENTER

Staff encourages the Committee to reconsider recommendation number 8 regarding the Glenmont Shopping Center. There is widespread support for the redevelopment of the shopping center, and Staff believes that requiring a local map amendment will create a hurdle for redevelopment that will be difficult – if not impossible – to overcome. Staff does not believe it is a good idea to allow only part of the site to be rezoned, and the likelihood of having the 12 property owners agree to pursue a local map amendment appears to be remote. If, however, the Council rezones the property now, redevelopment could occur in phases. In addition, the Committee recommendation would result in a downzoning of these properties, since the existing zoning allows for more development than currently exists on the ground. Staff questions whether a downzoning is appropriate if the longer term intent is significantly greater density.

While the Committee expressed interest in coordinated redevelopment, this could still occur in phases with multiple (but not all) properties pursuing joint development options. The Committee concerns about coordinated development could be addressed by requiring specific goals to be met during the development review process instead of as a condition of zoning. Staff asked Planning Department staff to prepare new language that could be included in the Sector Plan to ensure the quality coordinated development the Committee would support. This language is attached at © 1 to 3.

The Council received testimony from two property owners supporting the overall height and density recommendations. **One requested that the commercial floor area ratios (FAR) be increased to 2.5 to provide flexibility for whatever development opportunity might best allow redevelopment (e.g., if an office project becomes viable).** The fragmented ownership and market conditions will make redevelopment of this site particularly challenging and, therefore, Staff agrees with the property owner's request to provide the maximum flexibility for this site.

GEORGIA AVENUE WEST

Description in Sector Plan: Page 28
Zoning map on page 23
Existing zoning: RT-15, RT-12.5, 12.5 and R-60
Recommended Zoning: RT-15, RT-12.5 and R-60

Sector Plan Recommendation: This area west of Georgia Avenue includes Metro's west entrance, the recently constructed Metro Garage, the Glenmont Greenway and single family homes. The 1997 Plan encouraged assemblage of the single-family homes near Metro for townhomes. Approximately 140 single-family parcels were recommended as suitable for the RT-15 floating zone. Twelve properties requested the rezoning as part of the SMA, but no redevelopment has occurred. The Sector Plan recommends retaining the existing zoning, but also indicates that the area directly north of the new Metro Garage (the northern tip of the Washington Metropolitan Area Transit Authority (WMATA) triangle) is suitable for a mixed-use floating zone with predominantly residential uses. It also states that the site is appropriate for senior or affordable housing units.

Testimony: The Council received testimony from the County Executive requesting alternative zoning for the northern tip of the WMATA triangle (see © 4). The Department of Housing and Community Affairs (DHCA) is currently working with a developer on creating an affordable senior housing project at this location and would prefer for zoning to be applied at this time, rather than just having the Sector Plan indicate it is suitable for a future rezoning. They are requesting CRN 1.5, C 0.25, R 1.5, H 65 zoning for this property and believe this change in zoning is needed to provide adequate height and density to make the project economically feasible.

Staff Recommendation: This relatively small area will be difficult to develop unless the County is able to acquire the homes directly adjacent to the property. Nonetheless, the property is directly adjacent to the Metro entrance and would be an appropriate place for some additional density and therefore Staff supports the CRN zoning. The Sector Plan should also include additional guidelines to ensure compatibility with the adjacent homes (e.g., that the full height allowed by the zone should be adjacent to the garage or Georgia Avenue). Staff has asked Planning Department staff to be prepared at the worksession to indicate whether the zoning requested by the Executive would be appropriate if at some future point the properties between Flack and Georgia are assembled. If so, Staff recommends placing this density and height on the northern tip of the WMATA property and noting that the property may not achieve the full density without assemblage of adjacent properties. The Plan should also indicate that the homes within this block would be suitable for a future rezoning to the CRN zone.

ENVIRONMENTAL ISSUES

Environmental and energy issues are addressed on pages 41-43 of the Sector Plan. The environmental recommendations are both appropriate for a master plan and for the Glenmont area and focus on the need to preserve and restore existing natural features, increase tree canopy, minimize and mitigate for impervious surfaces, and connect the natural and built environments. While Staff believes it is also appropriate to generally state that redevelopment projects should reduce energy consumption or incorporate alternative energy when possible, the list of recommendations on page 43 raises the same issues the Committee discussed in the context of other Sector Plans. It appears that this Plan is recommending different energy-related goals for Glenmont relative to the rest of the County, without

any rationale for the differentiation. If these recommendations are meant to be Countywide policies, then an area specific master plan is not the appropriate place to implement such policies.

COMMUNITY FACILITIES

Community Facilities are discussed on pages 47-54 of the Sector Plan. The Plan describes existing facilities and supports existing plans related to schools, recreation facilities, public safety facilities, and libraries. It notes that construction of the interchange could require the relocation of the police station and suggests that the site of the former Glenmont Elementary School (which is where the Fire Station will relocate) may be appropriate.

The section on Parks, Open Spaces, and Trails makes recommendation for new parkland.

- The site of the Former Glenmont Elementary School will be the site of the relocated fire station, and the Sector Plan recommends a new local park adjacent to the fire station. If the police station is relocated to this site as well, the Plan recommends a replacement field be found elsewhere for this neighborhood.
- The Plan recommends a small neighborhood park northwest of Georgia Avenue to provide playground and picnic space. The Plan recommends acquiring one or more single-family lots for this purpose.
- The Plan recommends additional signage and access points for the existing Saddlebrook Local Park.
- The Sector Plan recommends Legacy Open Space (LOS) purchase of a 30-acre forested tract adjacent to the Glenfield Local Park and the Metro Station Maintenance Yard. Much of this land is owned by the County or WMATA. In addition to mature upland forest, the area contains headland streams and a significant portion of the area is already under a Forest Conservation Easement. The LOS designation will allow the Department of Parks to incorporate natural resource-based recreation, such as natural surface trails.

Staff supports the Sector Plan recommendations for parks and open space.

Glenmont Sector Plan

The approximately 20-acre site, bound by Randolph Road, Georgia Avenue, Layhill Road, and the Glen Waye Gardens condominium development, is the most identifiable site in Glenmont. The 1978 Plan discussed the need for a physical upgrade of the shopping center structures to develop a "positive image" for the community. The 1997 Plan characterized the center as poorly configured and unattractive with a confusing circulation pattern. To date, the recommendations of both plans have not been implemented.

The center currently has approximately 196,380 square feet with stores such as CVS, Shoppers Food Warehouse, Staples, and Country Boy. Although it is fully leased, the physical structure is worn and it lacks retail and entertainment services desired by the surrounding community. Fragmented ownership (15 different properties with 12 different owners) and lack of market demand for redevelopment have inhibited redevelopment, and will continue to be a major challenge in the foreseeable future. Land owners cite the lack of sufficient economic incentive (private or public) for reinvestment in the property.

The Glenmont Shopping Center is an appropriate location for a mixed-use town center with urban amenities such as a central open space, restaurants, and professional offices to achieve a dense urban node near the Metro station. The property's current Residential-Mixed Use Zone (RMX-2C) would allow up to 425,000 square feet of commercial development (0.5 FAR) and up to 784 housing units, which, at an average of 1,150 square feet per unit, translates into a residential density of approximately 1.0 FAR.

This Plan recommends an increase in residential density to incentivize mixed-use redevelopment with ground floor retail and multifamily residential above. The current zone, RMX-2C, does not have any building height limit. Although the current or near-term market projections do not support high-rise development in Glenmont, the proposed maximum height of 120 feet is designed to accommodate, over the long term, one or more buildings higher than six stories. These taller buildings should be placed in the property's interior.

Given the size and configuration of the properties, it is unlikely that redevelopment in excess of 0.5 FAR (Standard Method) could occur without some assemblage. In addition to the small sizes and narrow shapes of the lots, the fragmented ownership pattern and existing cross-property easements necessitate coordination among the property owners to take advantage of the higher densities allowed under Optional Method development. Any significant redevelopment under the proposed CR zoning would require assemblage of some of the parcels.

The Plan anticipates a phased redevelopment of the shopping center over a long period of time. It is likely to start with the assemblage and redevelopment of some of the properties, followed by redevelopment of the remaining properties over time to achieve the comprehensive, long-term vision of a walkable, mixed use town center with a central open space and a diversity of uses and activities. While this Plan recognizes the need to accommodate some near term development, the overarching goal of a comprehensive redevelopment of the entire site is the priority and must not be compromised through interim redevelopment under the Standard Method. Any Optional Method development on the property must achieve the following objectives:

- Create an assemblage of properties large enough to accommodate a mixed-use development, in one or more phases, that contributes to the ultimate vision for the shopping center over the long term.
- Facilitate redevelopment of the remaining properties consistent with the long-term vision of the Plan.
- Reduce the amount of surface parking and create a pleasant walkable pedestrian environment.

A centrally located public open space is envisioned for this site. It should be designed to accommodate community activities ranging from farmers markets to seasonal festivals. The space should have at least two retail frontages and preferably be located along the new internal street recommended for this property. The space should include outdoor seating, trees, and landscaping to provide shade and complement the hardscape.

It is desirable that there should be one centrally located public open space. However, it is possible that there could be more than one public open space if the property is develops in phases. Every effort should be made to create one large, central public space on this property even if there are additional open spaces due to phased development of the property. This central open space can be public (owned by the M-NCPPC Department of Parks as a Civic Green Urban Park) or private, and the responsibility for owning, managing, operating and programming the space should be determined during the development review process.

This central open space can be achieved through a combination of various CR mechanisms. First, a CR Zone optional method development is required to provide a minimum amount of Public Use Space. (Depending upon the area of the site and the number of right-of-way frontages, the minimum would range from 5 to 10 percent of the total site.)

The CR Zone permits a property owner to earn incentive density under the Optional Method, allowing the property to go above the Standard Method density of 0.5 FAR, for providing various public benefits. One category of such public benefits is major public facilities such as parks, schools, recreation centers, and other public infrastructure amenities. An optional method development on this property could provide an open space above the 10 percent minimum Public Use Space as a major public facility under this provision to achieve incentive density. The CR Zone also allows incentive density for public open space above the minimum required Public Use Space as part of the Quality Building and Site Design public benefit category.

Under the best scenario of a comprehensive redevelopment of the entire site, a combination of these provisions could result in a possible total open space of 3.5 acres if the entire shopping center property is developed under one Sketch Plan application.

Recommendations

- Rezone the entire site from RMX-2C to CR 3.0, C 1.0, R 2.5, H 120.
- Planning Board to ensure that all sketch plan approvals meet the goals outlined above for Optional Method projects.
- Create a central open space, either public or private in ownership and management, that meets the description of a Civic Green Urban Park per the 2012 *Park, Recreation, and Open Space Plan*. If the redevelopment occurs in phases, the central open space should not be deferred to the last phase.

- Provide, as a priority, the CR Zone public benefits of Public Open Space to achieve the central open space, and Affordable Housing to obtain more than minimum 12.5 percent required MPDUs.
- Use a compact building footprint to allow for landscape buffers, larger setback areas, and courtyards that create a green development with opportunities to achieve greater tree canopy and a balance of hard and soft landscape.
- Place taller buildings in the property's interior and transition down to a maximum 45-foot building height along the Glen Waye Gardens community to the northeast.
- Provide enhanced streetscape along the Georgia Avenue frontage such as pedestrian-scaled lighting, street furniture, and additional plantings with a double row of trees. Some of this landscaped area can be outside the right-of-way on the private property.
- Provide two internal east-west roads through the site, one connecting Randolph Road and Georgia Avenue and the other connecting Randolph and Layhill Roads (see Mobility section for new road criteria).
- The Montgomery County Department of Transportation and Maryland Department of Transportation should explore all options for improved vehicular access to the site.
- Minimize surface parking through structured and shared parking facilities.
- Increase tree canopy coverage to a minimum of 25 percent, preferably shading impervious surfaces.
- Provide safe and attractive pedestrian and bicycle connections to surrounding residential areas and to the Metro station entrance along Georgia Avenue.
- Integrate stormwater management into the development using Environmental Site Design.

DEPARTMENT OF GENERAL SERVICES

Isiah Leggett
County Executive

David Dise
Director

MEMORANDUM

September 18, 2013

To: Nancy Floreen, PHED Chair

From: Greg Ossont, Deputy Director
Department of General Services

Subject: Glenmont Sector Plan – WMATA Triangle Zoning

I am writing to share with you the County's position on the proposed zoning for the northern tip of the WMATA Triangle parcel; part of the Georgia Avenue West area described on pages 28 and 29 of the Planning Board Draft. This parcel is labeled #1 on Map 5 on page 23 of the Plan.

The Plan recommends retaining the current RT-12.5 zoning of the WMATA property with the option to apply a mixed-use floating zone with 'predominantly residential uses'. The Department of Housing and Community Affairs is currently working with a developer on creating an affordable senior housing project at this location. The development will require adequate density and height in order to make the project economical feasible.

We are requesting that the plan recommend CRN 1.5, C 0.25, R 1.5, H 65 for this site. This density will allow the project to move forward while providing assurances and compatibility standards.

If you have any questions, please contact me or Department of Housing and Community Affairs Director, Rick Nelson.

cc: Nancy Navarro, Council President
R. Nelson, DHCA
J. Greene, DHCA

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PHED COMMITTEE #1B
September 30, 2013

MEMORANDUM

September 26, 2013

TO: Planning, Housing, and Economic Development Committee

FROM: Glenn Orlin, Deputy Council Administrator

SUBJECT: Glenmont Sector Plan—transportation issues (continued)

Councilmembers: Please bring your copy of the Draft Sector Plan to this worksession.

This memorandum is a follow-up from the Committee's discussion on September 16. (Note: The attachments in this packet start with ©5.)

1. Land use/transportation balance. Every master plan should have a balance between its proposed land use and its proposed transportation network and services. For more than two decades this "balance" has been defined as what would be needed to meet the current adequate public facilities (APF) requirements as described in the Subdivision Staging Policy (formerly the Growth Policy). Achieving this balance in a plan is not an academic exercise: if a plan is not balanced, then at some point in the future a proposed master-planned development will be unable to proceed because it will have no means to meet the APF requirements. The only two out-of-balance plans adopted in the last 25 years were the Potomac Subregion Master Plan (2002) and the Chevy Chase Lake Sector Plan (2013).

The 2012-2016 Subdivision Staging Policy (SSP) revised the policy area and local area transportation tests, effective January 1, 2013. Late last fall the Council agreed that the revised methodology would apply to any draft plan brought forward subsequent to January 1; the Glenmont Sector Plan is the third such plan. The Final Draft had been developed under the prior set of requirements, so its "balance" calculations were based on Policy Area Mobility Review (PAMR) and the prior Local Area Transportation Review (LATR) methodology. Over the past several weeks Planning staff and its consultants have conformed this analysis to the Transportation Policy Area Review (TPAR) and the new LATR methodology based on the Transportation Research Board's *Highway Capacity Manual* (HCM).

Meeting the TPAR requirements is not an issue for Glenmont. TPAR is measured over the entirety of the Kensington/Wheaton Policy Area (the area south of Matthew Henson Park, east of Northwest Branch, north of the Capital Beltway, and west of Rock Creek) and the Glenmont Sector Plan is but a very small portion of it. Based on TPAR testing of the build-out of adopted plans by the year 2040, Planning staff forecasts the average speed will be 42% of uncongested speed in the Kensington/Wheaton Policy Area. The additional development in Glenmont would not cause the policy

area to fall below the TPAR roadway adequacy threshold for urban policy areas (i.e., 40% ratio of forecast speed to uncongested speed).

Most of the concerns raised have centered on LATR and intersection congestion. The supplementary testimony from several residents is representative (©5-12). They note that the CLV method of analysis that was used in the Final Draft has flaws; however, as noted above, M-NCPPC and its consultants have re-done LATR based on HCM. They point out that the LATR intersection congestion standard of 1.13 volume/capacity (V/C) for the Glenmont Metro Station Policy Area (MSPA) is well above the nationally acceptable standard. (The standard was formerly 1,800 Critical Lane Volume, also 13% over capacity.) The Council adopted this standard for MSPAs in the mid-1990s to allow more density around most Metro Stations without as many road improvements that would pose difficult barriers to pedestrian movement. The Council recognized that the standard would produce more congestion than typically allowed, but not enough to produce or approach gridlock.

The summary of the HCM analysis by M-NCPPC and its consultants is on ©13. It shows the results according to four scenarios: existing conditions; Year 2040 but without the proposed land use in Glenmont and the Georgia/Randolph interchange; Year 2040 with the proposed land use and the interchange; and Year 2040 with the proposed land use, the interchange, and reducing Layhill Road to 4 lanes between Georgia and Glenallan Avenues. The charts show the levels of intersection congestion in both the AM and PM weekdays peaks under both the CLV and HCM methods of analysis. The bar charts on ©14-17 display the average delay in the peak period for each movement at each of the four intersections that were evaluated.

For determining land use/transportation balance the key data are the V/C ratios under HCM (see the ratios in the second column from the right on ©13). If the ratio is higher than 1.13 in either the AM or the PM peak (highlighted in **bold** type), then the intersection is projected to be worse than the LATR standard. Under the scenario with the Sector Plan's proposed land use and the programmed interchange, the only intersection that is projected to fail is Randolph Road/Glenallan Avenue, with a 1.29 V/C in the AM peak. Under the scenario where Layhill Road between Georgia and Glenallan Avenues is reduced from 6 to 4 lanes—the "road diet"—the Georgia Avenue/Layhill Road intersection is projected to fail, with a 1.21 V/C in the PM peak.

Currently there are two approach lanes on Glenallan Avenue heading south into the intersection with Randolph Road: an exclusive left-turn lane, and a combination left/through/right lane. (An aerial photo of the existing intersection is on ©18.) By adding a third approach lane exclusively for right turns, the V/C ratio in 2040 is projected to be brought down to 1.12 V/C in the AM peak, which is just within the standard. (This added lane would also reduce congestion in the PM peak from 1.01 to 0.91.) There is sufficient room to add this lane with minimal cost and impact. The lane heading northbound from the intersection is much wider than it needs to be; the added lane could be created by using the extra width. If more width is needed, a few feet could be taken from one of the wide grass strips between the existing curb and sidewalk. Taking extra width from the east-side grass strip would be the better choice, as there are a few mature trees planted in the west-side strip.

The problem at the Georgia Avenue/Layhill Road is not the road diet, *per se*. Two lanes in each direction on Layhill Road would provide more than sufficient carrying capacity. The problem is the nature of the right turns from northbound Georgia Avenue to northeast-bound Layhill Road. Heading

north from Randolph Road, Georgia Avenue has three lanes. Nearing Layhill Road, a fourth lane begins that is used exclusively for continuous-flow right-turns, that is, turns that are never stopped by a traffic signal. This is also called a "hot right." While efficient for vehicular flow, the hot right poses a difficult impediment to pedestrian flow across this leg of the intersection. The Final Draft proposes both eliminating the fourth northbound lane and hot right, as well as reducing the number of lanes on Layhill Road from 6 to 4.

A solution that would bring this intersection within the V/C standard would be to retain the fourth northbound lane for right turns, but to eliminate the "hot" (continuous flow) nature of that turn. In other words, the northbound right-turn lane would be controlled by the traffic signal at Georgia/Layhill. This movement would be allowed through most of each signal cycle, since the only conflicting movements would be to northeast-bound Layhill Road from southbound Georgia Avenue and from eastbound Judson Road—both very small volume movements—and the pedestrian signal phase crossing Layhill Road. The result of this change is to bring the V/C in the PM down from 1.21 to 1.00, even with the "road diet" on Layhill.

Council staff also asked Planning staff and its consultants to examine the average peak hour speed for each of the three major highways in Glenmont both under existing conditions and under the planned 2040 land use with the transportation improvements noted above: the new interchange at Georgia Avenue/Randolph Road, the road diet on Layhill Road (as modified), and the added right-turn lane from southbound Glenallan Avenue to westbound Randolph Road. The average speed on each highway segment is:

Highway Segment	**Existing AM**	**Existing PM**	**2040 AM**	**2040 PM**
NB Georgia Avenue: Shorefield Road to Hathaway Drive	27 mph	8 mph	25 mph	12 mph
SB Georgia Avenue: Hathaway Drive to Shorefield Road	27 mph	26 mph	24 mph	26 mph
NB Layhill Road: Georgia Avenue to Briggs Road	30 mph	18 mph	22 mph	20 mph
SB Layhill Road: Briggs Road to Georgia Avenue	18 mph	20 mph	15 mph	15 mph
EB Randolph Road: Georgia Avenue to Middlevale Lane	23 mph	18 mph	20 mph	15 mph
WB Randolph Road: Middlevale Lane To Georgia Avenue	7 mph	19 mph	21 mph	21 mph

The HCM provides a level of service for a highway based on the range of existing or projected actual travel speeds compared to the base range of free flow speeds. This is similar to the current TPAR analysis. For these highways, passing through a Metro Station Policy Area with narrower lanes, bike lanes, and pedestrian activity, the typical free-flow speed (at uncongested times of day) will be 35 mph in 2040. In the HCM this is referred to as Arterial Class III. For Arterial Class III, the *HCM* identifies the following level of service ranges:

Average Speed	**Level of Service**
> 30 mph	A
> 24-30 mph	B
> 18-24 mph	C
> 14-18 mph	D
> 10-14 mph	E
≤ 10 mph	F

Therefore, all the road segments are projected to operate at Level of Service D or better in 2040, with the exception of northbound Georgia Avenue in the PM peak, which is projected to operate at Level of Service E.

Council staff recommendation: Include these two modifications in the Sector Plan, with which the LATR test would be met in 2040 with the Sector Plan's proposed land use; thus, the plan would be in land use/transportation balance. It should be noted that the forecasted congestion at these intersections may be somewhat overestimated. First, the traffic modeling for this plan did not include the proposed "local streets" in the network (see the tan dashed lines on p. 37 of the Sector Plan). These local streets are meant to collect and distribute traffic to the proposed development areas so as not to overburden some of the existing street network, especially Glenallan Avenue. Second, the plan does not assume a higher non-auto-driver mode share (NADMS) than exists today. The Plan does not cite an estimate for the current mode share, but it does use the assumption from the *TPAR/LATR Guidelines* that the vehicle trip generation from development in Glenmont is 18% less because of its close proximity to a Metro station. This same 18% discount is assumed in 2040 as well, although by then there will also be a Georgia Avenue Busway (already master-planned), a Randolph Road BRT line (concurrently recommended by the Planning Board in its Final Draft of the Countywide Transit Corridors Functional Master Plan), a more extensive pedestrian circulation and bikeway network (see pp. 34-35 and 38-39), and, possibly, parking management (see p. 35). Because the cumulative effect of these measures can't be quantified, they should simply be considered as a cushion.

On September 17 the PHED Committee asked whether a plan that proposed less land use—in particular, no additional housing density east and south of the shopping center—would change the transportation recommendations. The plan's only capacity-adding transportation improvement that has been "counted" in the traffic forecast modeling is the Georgia Avenue/Randolph Road interchange, which is about to go under construction and would be needed anyway. It is possible that lower density east of the shopping center might obviate the need for the added right-turn lane from southbound Glenallan Avenue to westbound Randolph Road. However, as noted above, adding this turn lane would have a small cost and minimal (or no) negative impact, so Council staff recommends including it in the plan anyway in case it is needed.

*2. **Local streets.*** The Sector Plan calls for six new internal roads concurrent with the redevelopment of the major development parcels "to provide internal pedestrian access, vehicular circulation and alternative means of ingress and egress" (p. 33). Each may be a private road if the developer agrees with the nine conditions listed on p. 33; otherwise they would be public roads. These conditions are virtually the same as those enumerated in the recently approved White Flint and Takoma/Langley Crossroads Plans: basically they assure they would function as if they were public streets. It is understood that while the endpoints of these six streets are to conform what is shown on p. 37, the particular paths these streets may follow between their endpoints are flexible, and would be determined at subdivision approval.

Council staff's concern is not the recommendation itself, but the format of it. **Council staff recommendation: The local streets should appear in the Street Classification table (Table 3 on p. 36) with all the attendant data for each, including classification as either a business district street (B-) or a primary residential street (P-). The streets should carry the footnote that they may be**

constructed as private streets subject to use easements meeting the requirements described on p. 35. This is how the White Flint Sector Plan formatted this element (see ©19).

*3. **Other transportation recommendations.*** The Final Draft includes a bikeway network (see pp, 38-39), which is somewhat more extensive than that contained in the 1997 Plan. The two major changes are: (1) it would extend the shared use path along Georgia Avenue north from Glenallan Avenue and would include bike lanes along its entire length in the planning area; and (2) a shared use path along Briggs Road west of Layhill Road. **Council staff recommendation: Concur with the Final Draft.**

Some have called for a pedestrian bridge or tunnel crossing Layhill Road to allow for safe and convenient access to and from the Metro station. Pedestrian underpasses and bridges are expensive to build and maintain, and unless heavily used, could pose security issues. The purpose of the road diet and sidewalk/bikeway recommendations is to improve the ease and safety of the on-the-surface pedestrian connections. **Council staff recommendation: Do not include in the Plan a pedestrian bridge or tunnel crossing Layhill Road.** Nevertheless, the absence of such a bridge or tunnel in a plan would not preclude it from being built, should the need arise.

The Plan calls for the County to explore district-wide parking management alternatives. Some have read into this the desire for a mandatory parking tax on all properties, but that is not the case.

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LAYHILL SOUTH COMMUNITY ASSOCIATION

Susan Johnson, President

12800 Teaberry Rd.

Silver Spring, MD 20906

301-949-2158

September 6, 2013

To: Montgomery County Council PHED Committee

From: Susan Johnson, Sherley Lee, Robert Shoenberg, Vicki Vergagni

Re: Glenmont Sector Plan

You have all been good enough to talk to us during the summer and have a pretty good idea of what our concerns are. Principally, we find it likely that the density of development proposed in the Glenmont Sector Plan will overwhelm the local road network. We have had an opportunity to review the latest studies performed by Sabra-Wang using the HCM analysis and note that they confirm our concerns about an overload on several intersections both now and at full buildout. We further note that the study, as it has been carried out so far does not reflect the cumulative delay at successive traffic signals, such as Layhill and Glenallan plus Layhill and Georgia. We are also puzzled by the fact that this study shows less impact for the 1550 units projected for the Privacy World property than did earlier studies. We already know that the development only of the Privacy World property (to be known as "Glenmont Metrocentre) will mean a waiting time of up to 20 minutes for cars to exit the new Metro parking garage on the west side of Georgia Ave. In short, it defies all logic and direct observation to believe that the addition of 4000 new dwelling units (not to mention new commercial establishments) with approximately 6000 automobiles and 9000 residents will not appreciably impact traffic.

We question the use of a 1.13 volume-to-capacity ratio to determine the acceptability of an intersection's traffic load. The Federal Highway Administration Manual, like most other publications on the subject, states that at a V/C ratio of more than 1.00, "the demand exceeds the available capacity of the intersection. Excessive delays and queuing are anticipated."

One set of assumptions the currently available studies make relate to the availability of public transportation. While Metro's Red Line will carry some residents into the District, the number of people to whom that option is applicable has peaked. An increasing number will rely on cross-county transportation which at this time is poor. It will be many years before the projected

Bus Rapid Transit System is in place, if it ever is. Furthermore, the BRT is north-south oriented, which will not be useful for workers going to the central and western parts of the county. Thus assumptions about public transportation users may be too high, not because people will be unwilling to use buses but because they will not be headed in the right direction.

While the traffic matters are at the heart of our objections to the sector plan, we also question the economic study that seems to require such density in order to make the Glenmont Shopping Center redevelopment viable. The sector plan assumes that Glenmont will not be a destination as are, say, Bethesda or Silver Spring. Thus, they assert, enough people must live in the immediate area to support shopping center businesses, whose costs of building and renting commercial space will be much higher than currently. But this assumption does not take into consideration use of the shopping center by people who live further up Layhill Rd. than the plan comprehends or both east and west on Randolph Rd. or north and south on Georgia Ave. If some of the businesses in a redeveloped shopping center offer special or even unique opportunities (e.g., an especially good restaurant or one with a cuisine not offered elsewhere, a bakery like the late lamented Upper Crust which drew people from a wide area to its Colesville location, an independent clothing store such as exists at Wildwood, etc.), people who can travel on these major arteries will come to Glenmont. Taking these slightly more distant communities into consideration reduces the economic need for such density.

We are conscious of the fact that the PHED Committee has an extraordinarily large amount of business before it. Thus members do not have time to explore the proposals in the detail they might like and thoroughly understand the interactions of the many parts. The natural tendency is to affirm the judgments of the experts, the staff of MNCPPC. We believe it would help if you heard directly from other people who have spent a lot of time on the details and who have a different perspective, one different from a county agency operating within the rather rigid framework of established policy. Thus we ask for the opportunity to engage in dialogue with the Park and Planning staff in your presence so that you may hear argument and counterargument equally represented. This kind of exchange occurs far too seldom, the usual procedure being for the public to present testimony at a public hearing or in writing without the possibility of any discussion or exchange of information and views. That procedure stacks the cards against the public.

We recognize that the County Council has adopted a policy of building densely around Metro stations. When the proposed density unacceptably impacts the surrounding area, the Council has three options: mitigate traffic, reduce development or make a local exception to the general rule. Since the Glenmont Sector Plan proposes an unacceptably high density of development, and since congestion mitigation steps are only vaguely possible, the third option seems most appropriate in this case. Having established the policy, the Council has the option of modifying the policy in circumstances that warrant it. We would argue that the full implementation of the Glenmont Sector plan as proposed is one of those circumstances.

Please understand that we welcome a major redevelopment of the shopping center. Our objection is to the net addition of close to 4000 housing units in the Glenmont Sector Plan area, probably some 9000 people and at least 6000 automobiles. That spells misery for a lot of people—and not just those in the sector plan area—for a very long time. Your decisions now have a reach of many years. We hope you will see to it that you have the best information before you as you make those decisions and that you take the time necessary to get that information.

Additional Testimony for the Montgomery County Council
Glenmont Sector Plan – Public Hearing Draft
Tuesday, September 10, 2013

Vicki Vergagni
President, Board of Directors and
On-Site Community Manager
Glen Waye Gardens Condominium

Based on meetings with staff of the Maryland-National Capital Park and Planning Commission and the Montgomery County Council subsequent to the Public Hearing on the Glenmont Sector Plan before the County Council, and based on Dr. Glenn Orlin's invitation to submit testimony as of the aforementioned date, I hereby submit additional testimony.

My name is Vicki Vergagni. I represent 214 condominium units and approximately 550+ residents of our community, Glen Waye Gardens. Glen Waye Gardens is surrounded by all four of the major parcels that are to be re-developed in the Glenmont Sector Plan. It is the property that will be the most immediately impacted by the redevelopment of each and every parcel.

My community's objections to the Glenmont Sector Plan are both related to process and to specifics. In that regard, we offer the following observations and comments.

1. **Critical Lane Volume (CLV) is the wrong analytical tool to assess/project traffic in situations such as Metro policy areas for several reasons:**

a. ***CLV is not the accepted analytical tool when signalized intersections are less than half a mile apart.*** Both the State of Maryland and the Highway Capacity Manual address this issue. On page 7 in Chapter 16 of the Highway Capacity Manual 2010, it shows that an intersection or segment is effectively isolated (from the impact of other intersections), if the intersections are more than 3,000 feet apart on roads with speed limits of 25 - 35 mph. In that a mile is 5,280 feet, this means that the intersections must be more than half a mile apart to consider the use of CLV. Use of CLV when the intersections are less than half a mile apart results in inaccurate counts of intersections' thru-traffic which creates artificially low counts and leads to conclusions that there is no problem (*i.e.*, that traffic is free-flowing). Use of CLV for planning purposes is much like burning a steak and then smothering it in sauce (which won't cure the underlying problem).

b. ***CLV does not address measures of effectiveness that are anticipated outcomes of sector and development plans***, including: volume-to-capacity ratio related to saturation flow rate (*e.g.*, number of lanes, lane width, area type, heavy vehicles, grade, parking, bus stops, lane utilization, right and left-turn factors, pedestrian and bicycle factors); green time; cycle length; lane group volume-to-capacity ratio; and approach volume-to-capacity ratio. CLV also fails to take into account lane group capacity and delay, approach capacity and delay, left-turn phasing, signal timing (*e.g.*, cycle length, green times), geometrics, pedestrians and bicyclists, area type, progression, upstream metering and signal control type.

c. ***CLV has several weaknesses that are critical to transportation planning/ operations, particularly on a congested road network.*** It does not support operations analysis because it masks existing problems. It does not address intersection capacity affected by operations measures. It does not analyze lane groups. It does not analyze intersection approaches. It is more prone to operator error. It does not suggest more accurate geometric improvements. It requires more user judgment. It has not been improved since its inception.

In spite of numerous requests of aforementioned staff and an extensive literature search, there is no evidence that CLV is a preferred analytical tool for congested roadways.

2. HCM is the appropriate analytical tool to assess/project traffic in congested areas such as Glenmont, and is supportive of a cost-benefit analysis. The fact that sector plans are being created for 20 years out and lay the ground work for interim development means that millions, if not billions, of dollars are at stake. The County cannot afford to make decisions based on incomplete information and misleading conclusions provided by CLV based on unwillingness to abandon the County's historical approach to traffic analysis. While HCM does take more time to gather and analyze information, it is a justifiable cost given the stakes at hand.

3. The County's policy of applying HCM only when the CLV exceeds 1600 is an unsupported "standard". A perfect example of this is the remand of Glenmont Metrocentre which showed a CLV of 1267 – and traffic backed up through two intersections. Although HCM should be used at all times in a sector plan, a minimum threshold for use of HCM should be when a vehicle sits through more than one cycle of the same light at an intersection.

4. The volume-to-capacity ratio of 1.13 that has been adopted by the County Council for Metro policy areas is a meaningless standard. A literature search in this regard consistently produces the conclusion that such a volume-to-capacity ratio virtually ensures congestion. In fact, the technical literature advises that when a roadway has a volume-to-

capacity ratio greater than .95, congestion will begin. Below is an excerpt from a publication of the Federal Highway Administration.

Publication Number: FHWA-HRT-04-091
Date: August 2004

Signalized Intersections: Informational Guide

Critical Volume-to-Capacity Ratio	Assessment
< 0.85	Intersection is operating under capacity. Excessive delays are not experienced.
0.85-0.95	Intersection is operating near its capacity. Higher delays may be expected, but continuously increasing queues should not occur.
0.95-1.0	Unstable flow results in a wide range of delay. Intersection improvements will be required soon to avoid excessive delays.
> 1.0	The demand exceeds the available capacity of the intersection. Excessive delays and queuing are anticipated.

Understanding the critical movements and critical volumes of a signalized intersection is a fundamental element of any capacity analysis. A CMA should be performed for all intersections considered for capacity improvement. The usefulness and effectiveness of this step should not be overlooked, even for cases where more detailed levels of analysis are required. The CMA procedure gives a quick assessment of the overall sufficiency of an intersection. For this reason, it is useful as a screening tool for quickly evaluating the feasibility of a capacity improvement and discarding those that are clearly not viable.

The County has changed the denominator for its volume-to-capacity ratio to establish a relaxed standard; however, that standard does not change the reality of the traffic that drivers, pedestrians and bicyclists experience. This is not an approach that assures that development is done in a manner that supports the public interest.

5. The Council must be privy to all traffic information related to any sector plan. At this point, staff is providing the Council only "gross" traffic information related to intersections for its decision-making. ***(And that information with regard to the four key***

intersections in the Glenmont Sector Plan is neither complete nor accurate as of September 6, 2013.) Even the "weighted" CLV average for an intersection is inappropriate on a congested roadway (which does not generate an accurate picture of traffic because only vehicles that go through an intersection are counted). And the uni-directional nature of traffic in the peak rush hours further discredits the CLV as the County's analytical traffic tool of choice. The Council also should be provided with "movement" information, as well as "corridor" information, as they provide a more complete picture of reality.

6. Putting Layhill Road on a "diet" by reducing it from six lanes to four lanes between Georgia Avenue and Glenallan Avenue is unacceptable on a number of levels.

a. This would significantly ***increase both delay and queuing on Layhill Road*** in the morning and evening rush hours.

b. Those wishing to exit the "old" Metro garage on Layhill Road will be unable to do so and must use one of the other two exits, which would **exacerbate both delay and queuing at Metro garage exits onto Georgia Avenue and Glenallan Avenue.**

c. Vehicles wishing to get onto Layhill Road from the "west" in the morning and from the "east" in the evening will have a nearly impossible task, and will be required ***to "circle" the Metro station to gain access***.

7. **Montgomery County cannot have its density cake and eat it, too.** If density is a goal, significant traffic mitigation must be employed. With regard to Glenmont Metrocentre, a bridge for pedestrians and bicyclists must be built to assure safety which will encourage the use of transit. With regard to the massive amount of development slated for Glenmont Metrocentre, Winexburg, Glenmont Forest and Glenmont Shopping Center (all of which are mixed use, so have significantly higher trip generation rates than purely residential areas), there must be several approaches to traffic mitigation (*e.g.*, "all-walk/bike" intersection at Glenallan and Layhill that allows folks to cross catty-corner to save time for vehicular traffic; pedestrian and bicycle bridge across Layhill Road to the Glenmont Shopping Center). Further, when looking at density, the County also must consider the routine, non-rush hour traffic that generates an average of two to three vehicular trips per day per domicile. Our residents are not interested in living on a mini-Rockville Pike which has congestion throughout the daylight hours, and often into the nighttime.

8. A public/private road should be built north of Winexburg and Glenmont Metrocentre between Georgia Avenue and Randolph to parallel Glenallan Avenue to line up with Denley so that Glenallan Avenue is not carrying all of the traffic. (There would have to be a cut in the median on Layhill Road to access the cross-road.)

9. The County has three options for addressing growth: mitigate traffic, reduce development, and/or change the rules governing development. **The Glenmont Sector Plan provides no mitigation of traffic or reduction in development. The only thing it has done is employ rules that assure a lax standard to analyze traffic which facilitates development and creates a false impression that traffic mitigation is not needed.** This approach operates to the detriment of those living and/or driving through the area on a regular basis. Failing to provide appropriate traffic mitigation with a four-to five-fold increase in density is irresponsible. It is time to "change the rules" to support the public interest, such as lowering the density goal to assure that the basic character of a neighborhood is not changed and that its quality of life is enhanced, not destroyed. to development

10. The closure of Judson at Georgia Avenue would be helpful with regard to the timing of the lights at the intersection at Georgia and Layhill. This would provide approximately 24 seconds for pedestrians and bicyclists to cross Layhill Road. It is important to note, however, that while an individual could cross the 4 to 6 lanes of Layhill Road in that period of time, a platoon of individuals cannot. With the anticipated increase in the use of transit, a platoon more accurately reflects the volume of pedestrian traffic.

11. Obviously traffic will get worse in the future in general; however, the notion presented by M-NCPPC staff that adding 4,000+ domiciles (and 10,000+ individuals) within one block of Metro in Glenmont will not exacerbate traffic defies logic. Even the HCM traffic analyses done for the Glenmont Metrocentre remand indicate that with the addition of only Glenmont Metrocentre, virtually every key intersection associated with the Glenmont Sector Plan will have an increase in delay and queuing, and that all will degrade with some "failing" (*i.e.*, more than an 80-second delay to drivers) -- in both the a.m. and p.m. peak hours.

12. If a neighborhood into which many of us invested is to change per the preference of the County, the citizenry should receive benefits that outweigh the disadvantages. An improved shopping center would be welcomed; however, the bottom line is whether or not the daily grind of a difficult/unsafe commute (via transit or vehicle) exceeds the benefit of good shopping one or two days each week.

As a final comment, **M-NCPPC and the Council should not be taking up all of the sector plans at once.** They should be spread out over several years -- preferably one sector plan per year, but not more than two..... ***And to add a complete re-write of zoning, along with the routine review of specific developments, is folly.*** The plethora of information, much of which cannot be digested, is resulting in decision-making with unintended consequences that do not support the public interest – and will require far more effort to "undo" than it took to "do" in the first place.

- Finally, the County should not be penny-wise and pound-foolish. Invest taxpayer resources in long-term issues that have potentially severe consequences for them. This means investing in solid traffic studies.

Summary

Every day voters are reminded of the money they waste on gasoline and the time they lose as they sit in traffic. Come election time there will be signs at congested intersections asking folks to "honk against congestion" and then to "vote against incumbents" who brought it to them. We trust that those of you who wish to run again will make traffic study literacy a priority, and then approve sector plans and developments only as they benefit the community.

Even if folks don't agree, it is much easier to swallow a bitter pill if they feel that they have been treated fairly. As one individual who regularly sits in traffic told me, he is tired of County staff and Councilmembers telling him that there currently is, and in the future will be, negligible congestion -- as if he is ignorant of traffic conditions that he experiences every day. He also notes that it appears that development in the County, particularly when it comes to traffic, is being built on a house of cards. And he is tired of paying more for less as the County produces one traffic jam after another – never looking back to see what went wrong.

Based on the incomplete HCM traffic study of Glenmont intersection, as well as the erroneous supporting documentation for the Glenmont Sector Plan, we believe that the PHED should invite established leaders of the various communities to collaborate with them to fashion a more appropriate sector plan for Glenmont.

Thank you for the opportunity to present the views of the majority of our community.

Existing Conditions AM (PM)						
Intersection	Critical Lane Volume			HCM		
	CLV	V/C Ratio	Level of Service	Delay (sec)	V/C Ratio	Level of Service
Georgia Ave and Glenallan Ave	867 (1120)	0.54 (0.70)	A (B)	21.4 (15.6)	0.57 (0.70)	C (B)
Georgia Ave and Layhill Rd	1114 (1062)	0.70 (0.66)	B (B)	29.4 (25.7)	0.75 (0.72)	C (C)
Randolph Rd and Glenallan Ave	1320 (1065)	0.82 (0.67)	D (B)	38.4 (37.7)	0.91 (0.71)	D (D)
Layhill Rd and Glenallan Ave	875 (898)	0.55 (0.56)	A (A)	28.9 (30.6)	0.60 (0.60)	C (C)

Thresholds are set at CLV of 1800 and v/c of 1.13. Values that exceed these thresholds are bolded.

Base Conditions: 2040 Volumes without Added Land Use with Existing Transportation Network AM (PM)						
Intersection	Critical Lane Volume			HCM		
	CLV	V/C Ratio	Level of Service	Delay (sec)	V/C Ratio	Level of Service
Georgia Ave and Glenallan Ave	984 (1167)	0.61 (0.73)	A (C)	38.9 (24.8)	0.65 (0.75)	D (C)
Georgia Ave and Layhill Rd	1152 (1295)	0.72 (0.81)	C (C)	33.8 (38.4)	0.73 (0.81)	C (D)
Randolph Rd and Glenallan Ave	1579 (1229)	0.99 (0.77)	E (C)	79.3 (25.1)	1.08 (0.80)	E (C)
Layhill Rd and Glenallan Ave	936 (1027)	0.58 (0.64)	A (B)	30.0 (33.1)	0.60 (0.70)	C (C)

Thresholds are set at CLV of 1800 and v/c of 1.13. Values that exceed these thresholds are bolded.

Proposed Conditions: 2040 Volumes with Added Land Use with Randolph/Georgia Interchange AM (PM)						
Intersection	Critical Lane Volume			HCM		
	CLV	V/C Ratio	Level of Service	Delay (sec)	V/C Ratio	Level of Service
Georgia Ave and Glenallan Ave	1262 (1537)	0.79 (0.96)	C (E)	36.7 (41.3)	0.91 (1.07)	D (D)
Georgia Ave and Layhill Rd	1254 (1447)	0.78 (0.90)	C (D)	16.5 (34.9)	0.80 (0.91)	B (C)
Randolph Rd and Glenallan Ave	1785 (1532)	1.12 (0.96)	F (E)	149.9 (73.1)	**1.29** (1.13)	F (E)
Layhill Rd and Glenallan Ave	995 (1230)	0.62 (0.77)	A (C)	29.0 (31.0)	0.66 (0.84)	C (C)

Thresholds are set at CLV of 1800 and v/c of 1.13. Values that exceed these thresholds are bolded.

Future Condition: 2040 Volumes with Added Land Use, Randolph/Georgia Interchange, & 4 Lanes on Layhill Rd AM (PM)						
Intersection	Critical Lane Volume			HCM		
	CLV	V/C Ratio	Level of Service	Delay (sec)	V/C Ratio	Level of Service
Georgia Ave and Glenallan Ave	1262 (1537)	0.79 (0.96)	C (E)	39.6 (50.3)	0.94 (1.08)	D (D)
Georgia Ave and Layhill Rd*	1294 **(1840)**	0.81 **(1.15)**	C (F)	27.2 (106.9)	0.83 **(1.21)**	C (F)
Georgia Ave and Layhill Rd**	1319 (1578)	0.82 (0.99)	D (E)	22.3 (44.7)	0.82 (1.00)	C (D)
Randolph Rd and Glenallan Ave	1785 (1532)	1.12 (0.96)	F (E)	132.5 (45.2)	**1.28** (1.01)	F (D)
Randolph Rd and Glenallan Ave***	1497 (1400)	0.94 (0.87)	E (D)	83.1 (30.9)	1.07 (0.91)	F (C)
Layhill Rd and Glenallan Ave	1394 (1386)	0.87 (0.87)	D (D)	41.1 (40.4)	0.94 (0.91)	D (D)

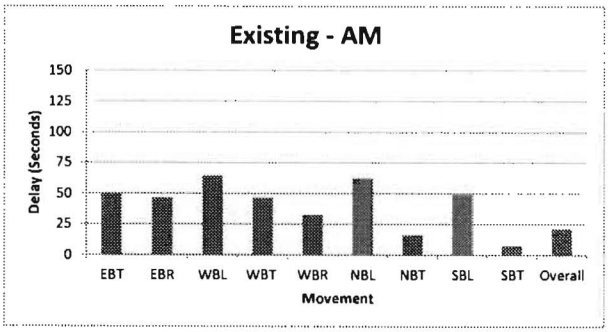
Thresholds are set at CLV of 1800 and v/c of 1.13. Values that exceed these thresholds are bolded.

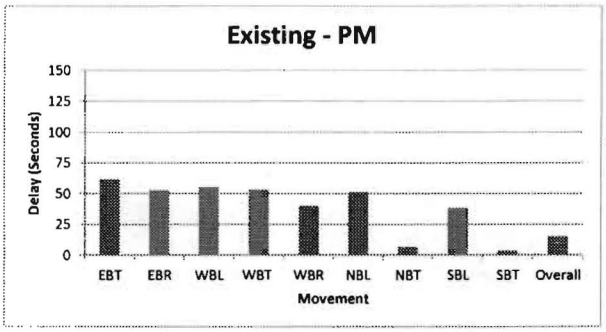
*Road diet on Layhill Rd with removal of free uncontrolled right-turn lane from northbound Georgia Ave to Layhill Rd

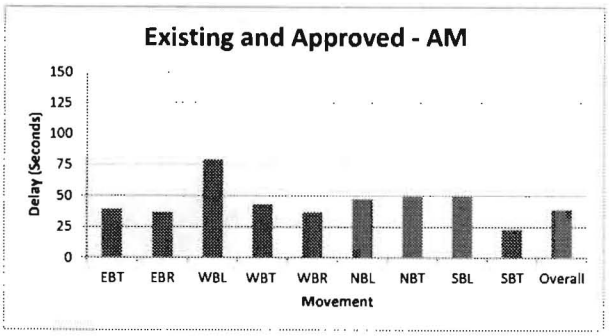
**Road diet on Layhill Rd maintaining northbound right-turn lane from Georgia Ave to Layhill Rd as a controlled right turn; Judson Rd one lane outbound

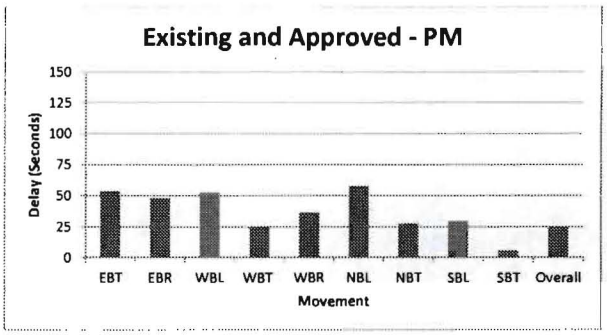
***Randolph Rd/Glenallan Ave with an exclusive southbound right turn lane on Glenallan Rd.

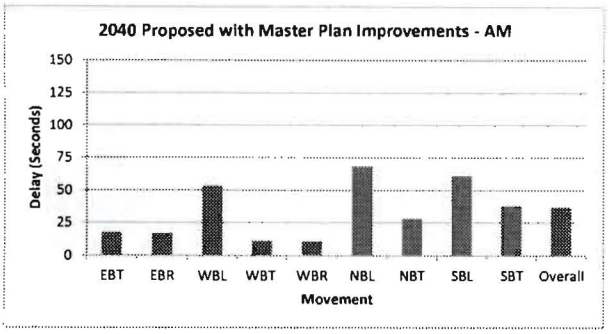
Intersection Delay Summary Tables - Georgia Ave and Glenallan Ave

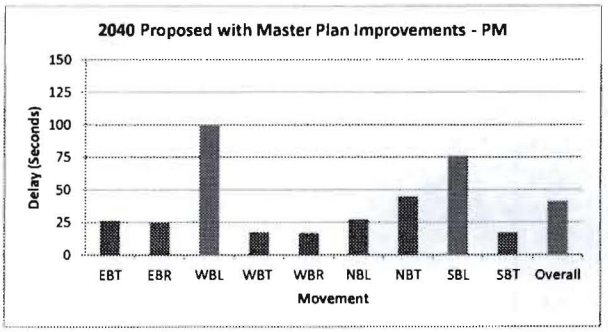


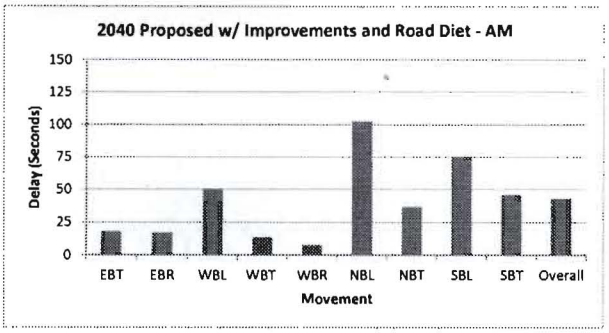


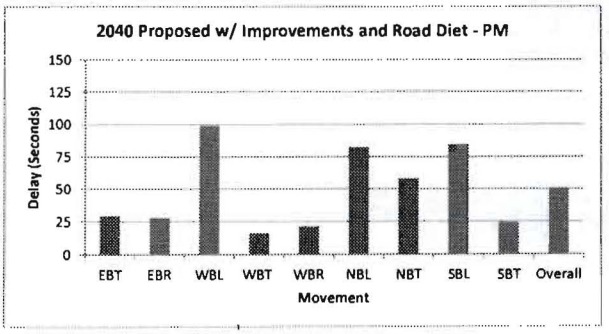




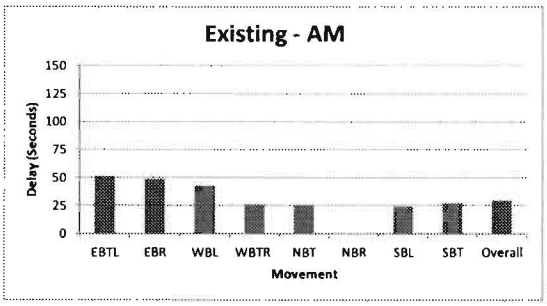


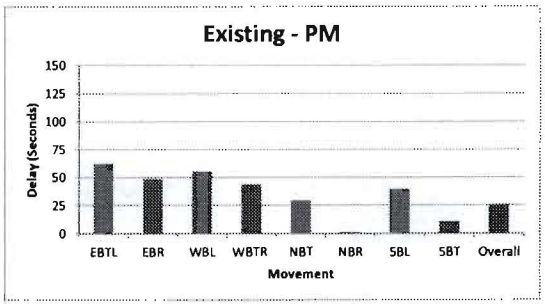


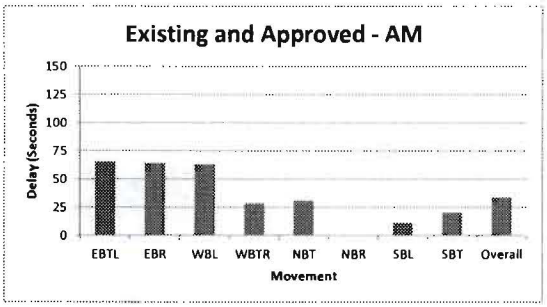


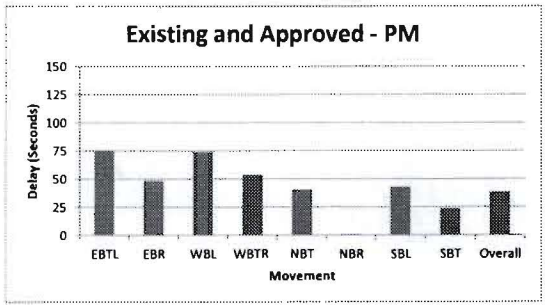


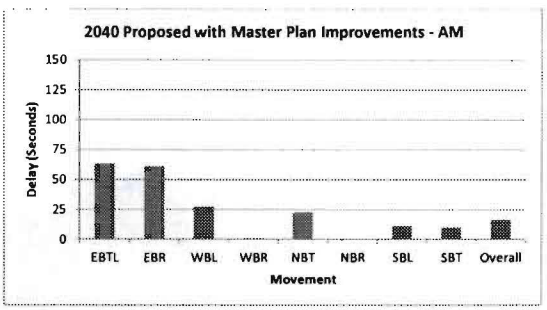
Intersection Delay Summary Tables - Georgia Ave and Layhill Rd

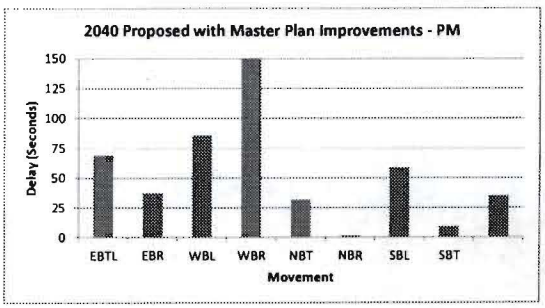


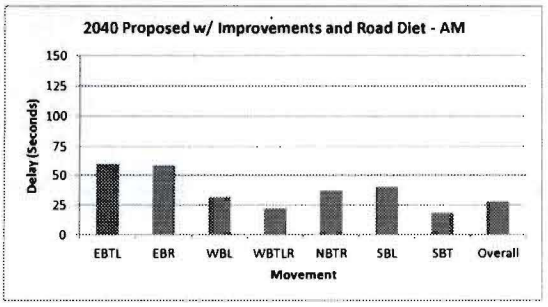


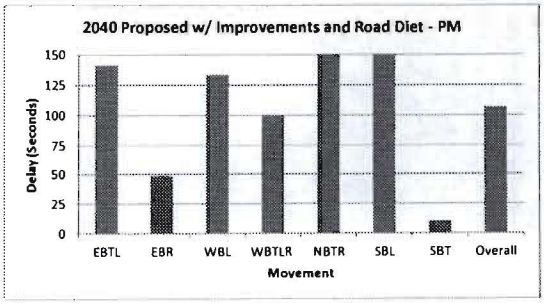


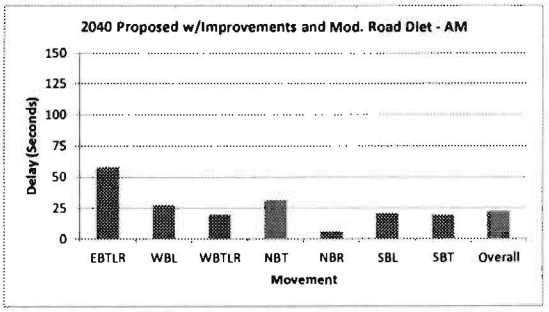


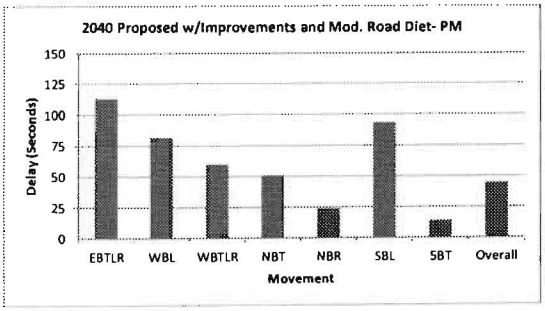




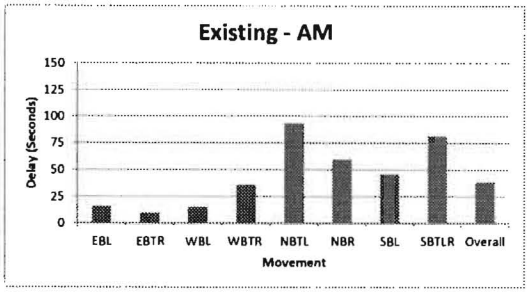


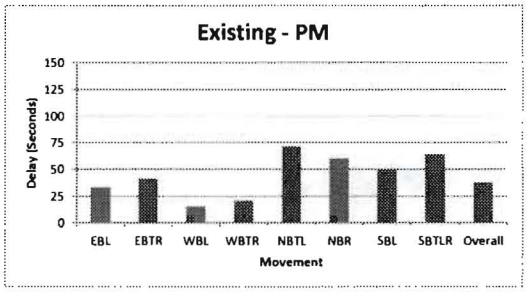


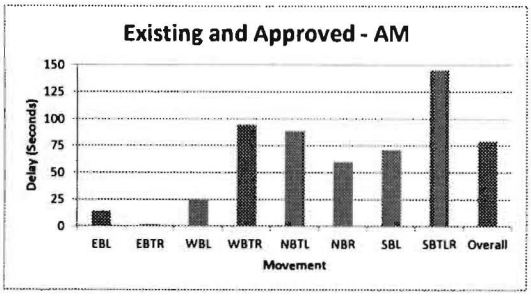


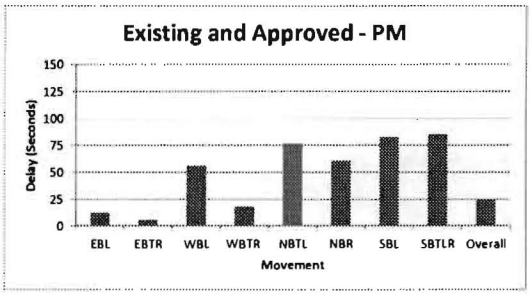


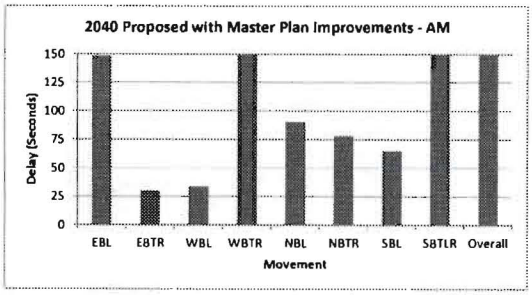
Intersection Delay Summary Tables - Randolph Rd and Glenallan Ave

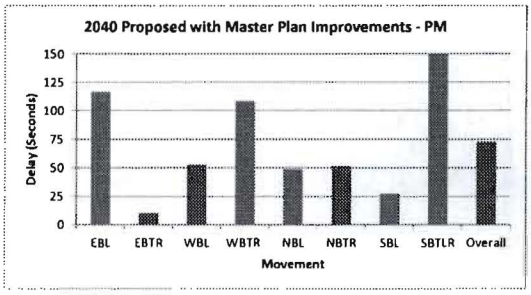


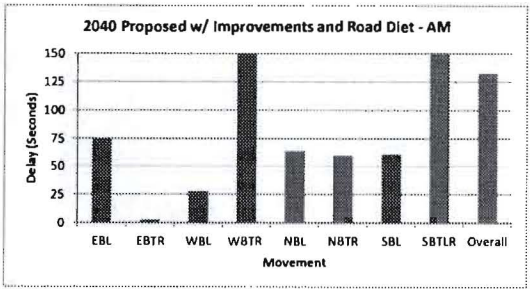


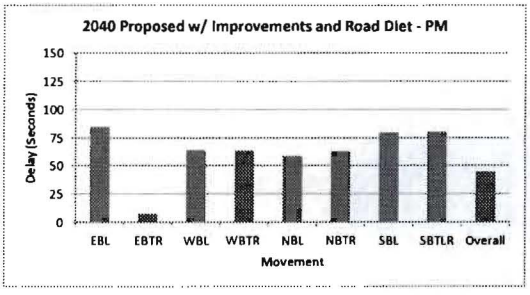


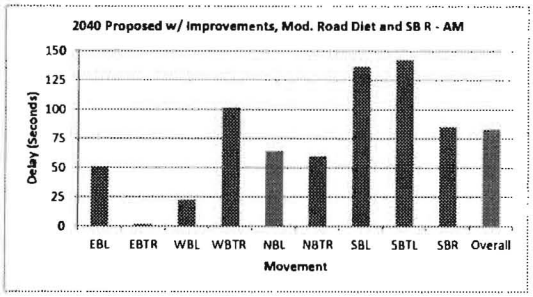


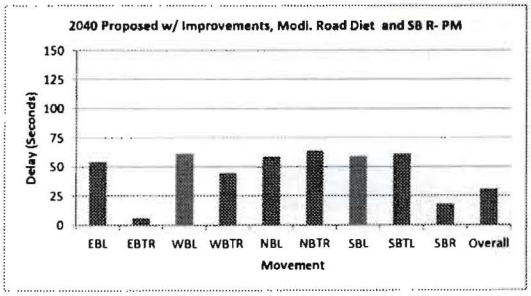




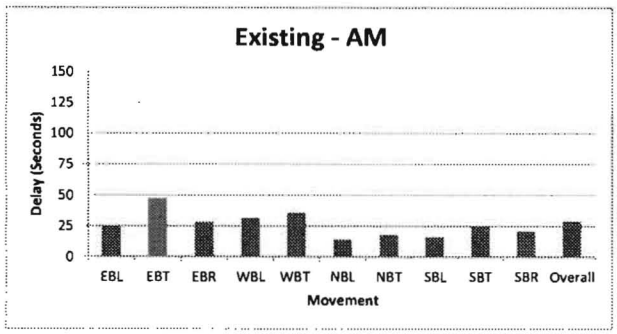


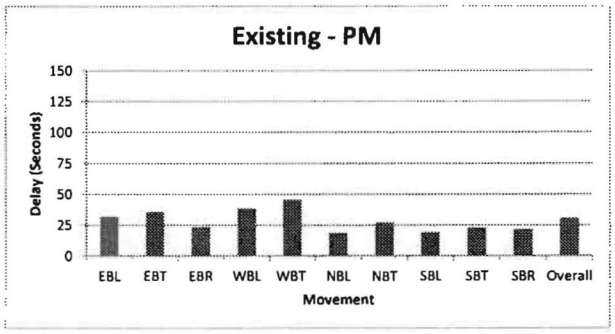


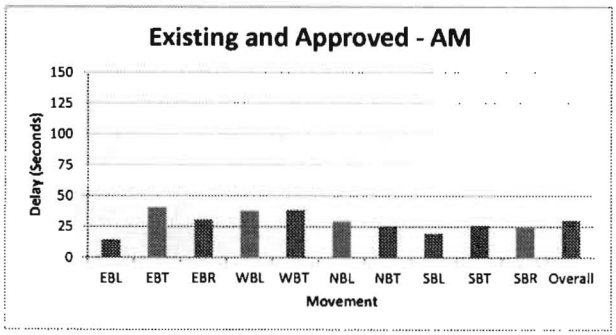


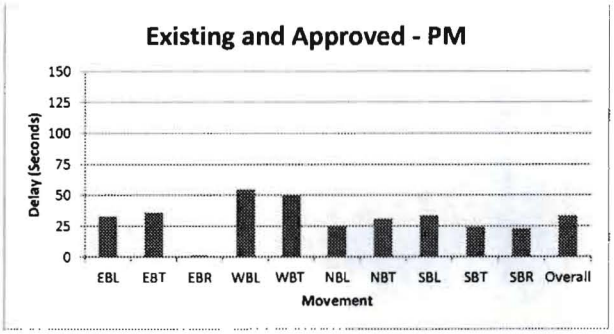


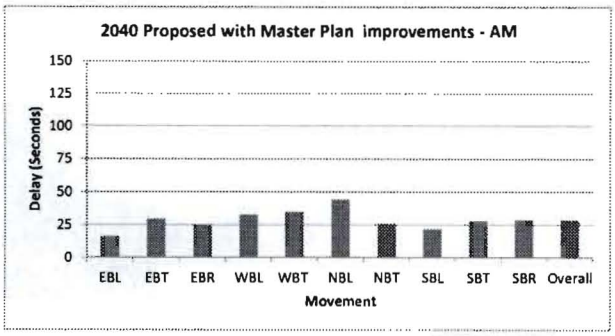
Intersection Delay Summary Tables - Layhill Rd and Glenallan Ave

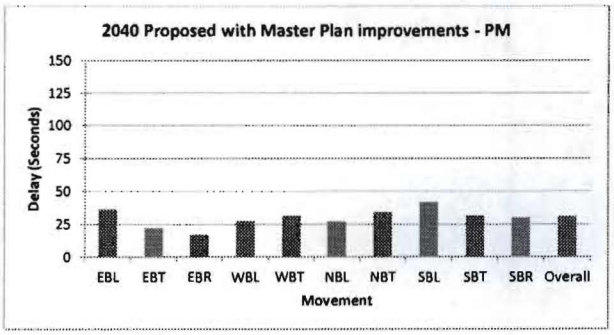


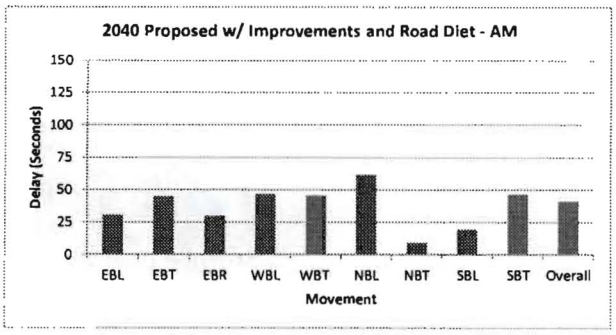


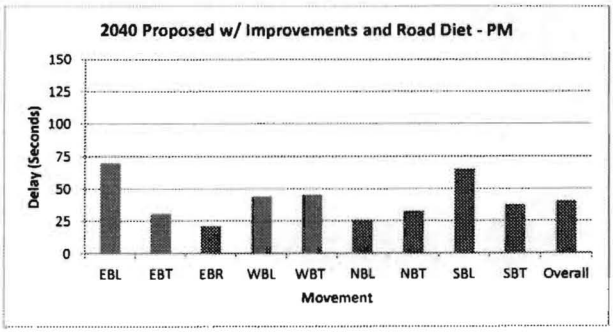










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Map
Traffic
50 ft
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Table 4: Roadway Facility and Segment						
Street	**From**	**To**	**Road Number**	**ROW (feet)**	**Lanes***	**Road Code Standard**
Major Highways						
Old Georgetown Rd (MD 187)	Nicholson Ln	Executive Blvd	M-4	150	6, divided	2008.02 mod.
	Executive Blvd	Rockville Pike (MD 355)	M-4	120	4, divided	2008.01 mod.
Hoya St	Executive Blvd	Montrose Pkwy	M-4a	120	4, divided	2008.01 mod.
Rockville Pike (MD 355)	Sector Plan southern boundary	Sector Plan northern boundary	M-6	150 (162**)	6, divided	2008.02 mod.
Arterials						
Montrose Pkwy	Hoya St	Sector Plan eastern boundary	A-270	300	4, divided	2007.01 mod.
Randolph Rd	Montrose Pkwy	Plan eastern boundary	A-90	100	4	2004.01 mod. / 2004.28 mod.
Nicholson Ln	Old Georgetown Rd (MD 187)	Sector Plan eastern boundary	A-69	90	4	2004.02 mod. 2004.26 mod.
Business Roads						
Chapman Ave (Maple Ave)	Marinelli Rd	Old Georgetown Rd	B-12	70	2	2005.02
	Old Georgetown Rd	Montrose Pkwy	B-12	70	2	2005.02
Citadel Ave/Boylston St	Nicholson Ln	Old Georgetown Rd	B-4	70	2	2005.02
Edson Ln	Woodglen Dr	Rockville Pike (MD 355)	B-5	70	2	2004.21 mod. / 2005.02 mod.
Executive Blvd Extended	Marinelli Rd	Nebel St Extended (B-5)	B-7	80	4	2004.01
Huff Ct/ Huff Ct Extended	Executive Blvd Extended	Nicholson Ln	B-4	70	2	2005.02
Huff Ct/ Huff Ct Extended* **	Nebel St Extended (B-5)	Executive Blvd Extended	B-4	70	2	2005-02
Station St	Marinelli Rd	Old Georgetown Rd	B-11	70	2	2005.02
Marinelli Rd	Executive Blvd	Nebel St	B-6	90	4	2005.03 mod.
Market St	Old Georgetown Rd (MD 187)	Rockville Pike (MD 355)	B-10	70	2	2005.02
McGrath Blvd	Rockville Pike (MD 355)	Wentworth Pl (B-13)	B-10	70	2	2005.02
Mid-Pike spine street	Marinelli Rd	Old Georgetown Rd (MD 187)	B-15	80	4	2004.01
	Old Georgetown Rd (MD 187)	New Street (Mid-Pike rung) (B-16)	B-15	70	2	2005.02
Nebel St Extended	Randolph Rd	Plan northern boundary	B-5	80	4	2004.24 mod.
Nebel St	Nicholson Ln	Randolph Rd	B-5	80	2	2004.24 mod.
Nebel St Extended	Rockville Pike (MD 355)	Nicholson Ln	B-5	80	2	2004.01 mod. 2005.02 mod.
new street (Mid-Pike rung)	Hoya St	Rockville Pike (MD 355)	B-16	80	2	2005.02 mod.
Nicholson Ct (realigned)	Nebel St Extended	900 feet east of Nebel St Extended	B-14	70	2	2005.02
Old Georgetown Rd	Rockville Pike (MD 355)	Nebel St	B-2	90	4	2004.02 mod. / 2005.03 mod.
Security Ln/Security Ln Extended	Woodglen Dr	Huff Ct Extended (B-4)	B-17	70	2	2005.02
Wentworth Pl	Marinelli Rd	Nebel St	B-13	70	2	2005.02
Woodglen Dr	Edson Ln	Nicholson Ln	B-3	70	2	2005.02 mod.
Woodglen Dr * **	Nicholson Ln	Marinelli Rd	B-3	60	2	2005.02 mod.
Woodglen Dr * **	Marinelli Rd	Mid-Pike Rung (B-16)	B-3	70	2	2005.02 mod.
new street * **	Chapman Ave	Nebel St	B-18	70	2	2005.02
new street * **	Nicholson Ln	Executive Blvd Extended	B-19	70	2	2005.02
*The number of planned through travel lanes for each segment, not including turning, parking, acceleration, deceleration, or other auxiliary lanes.						
** The Rockville Pike 150-foot right-of-way can be expanded to 162 feet (additional feet to be obtained through reservation).						
*** New streets B-18, B-19, Huff Court Extended (B-4), and the portion of Woodglen Drive (B-3) north of Nicholson Lane may be constructed as private streets subject to use easements meeting the requirements described in the Plan text.						
"mod." indicates that some modification is needed to the referenced design standard to reflect planned elements such as transit priority, bike lanes, or turn lanes.						
The target speed for all master planned roadways in the Plan area is 25 m.p.h., except for Montrose Parkway with a target speed of 35 m.p.h. in the Plan area.						